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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

YU, GINA C

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 01/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/501,876

Applicant(s)

SOWLE ET AL.

Examiner

Gina C. Yu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 13-19, 21, 22, 25-27, 50, 51 and 53-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 13-19, 21, 22, 25-27, 50, 51, 53-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Receipt is acknowledged of Amendment filed on September 14, 2004. Claim rejections made under 35 U.S.C. § 112, second paragraph, are withdrawn in view of claim amendments. Claim rejections made under 35 U.S.C. § 103(a) are withdrawn and modified to address new claim limitation and new claims. Claims 1-9, 11, 13-19, 21-27, 29, 50, 51, 53-76 are pending.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-5, 7, 8, 19, 21, 22, 25-27, 50, 51, 55, 56, and 59-76 are rejected under 35 U.S.C. 103(a) as obvious over Holdt et al. (US 4, 683, 072) in view of Kitko (US 4248827).

Holdt teaches a disinfectant tablet comprising, among others, 1) up to 50 % by weight of a disinfected selected from a chlorine releasing or an active oxygen containing compound or acid; 2) 5-15 % by weight of a dye in a dye-containing component. See abstract. The reference teaches that the dye-containing component (which meets "a source of dye" requirement) comprises disintegration rate regulator and plasticizer, and inorganic alkali metal salts such as sodium sulfate (builder salt). See instant claims 1 and 63. See Example 1, for the use of sodium dichloroisocyanurate dihydrate. See instant claims 4, 21, and 68. The reference teaches using dyes that are "mainly green and blue shades ... which are sensitive to chlorine or active oxygen and change their color more or less rapidly in the presence of hypochlorite or active oxygen or fade out".

See col. 2, lines 58 – 66. The reference teaches in Example 3 a cleaning and disinfectant table comprising acid compounds. See instant claim 1(c). The reference teaches sodium bisulfate (sodium hydrogen sulfate). See instant claims 25, 26, and 69. The pH of the acid-containing composition is obviously below 7.

While Holdt fails to teach a composition comprising both a chlorine-releasing agent and an acid compound, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined both in a single composition in a reasonable expectation of successfully producing a cleaning and disinfecting tablet of enhanced effects. Alternatively, the idea for combining compounds each of which is known to be useful for the same purpose, in order to form a composition which is to be used for the same purpose, flows logically from their having been used individually in the prior art. See In re Kerkhoven, (citation omitted). As shown by the recited teachings, the instant claims define nothing more than the concomitant use of conventional disinfecting agents used for toilet bowl cleaning. It would follow that the recited claims define prima facie obvious subject matter.

See Drawings and col. 5, lines 51-68 for the shape and weight of the tables. While the size or dimension of the tablets are not taught, examiner views it obvious for a skilled artisan to discover an optimum size of the tablet for desired strength and effectiveness. See instant claims 2, 3, 5, 66, and 67. The water in which the tablet is dissolved meets the aqueous liquid composition of instant claims 19 and 50. The tablet is said to comprise substances to minimize the premature interaction of the components and has improved shelf life. See col. 1, lines 47 – 63; col. 2, lines 22 - 26. Claims 55-

62 are directed to how the solid unit or the composition made from the solid unit will be used. Thus the recitation of the use in claims 55-62 are mere intended use or purpose of the composition, and no patentable weight is given to these terms. The method of using the aqueous composition by contacting the composition with ware or hard surface and then removing the solution from the ware is met by dissolving the tablet in the toilet which contains water, which is eventually flushed after the disinfection. See instant claims 71-73.

Holdt fails to teach the duration which the composition changes from colored to colorless state. The reference also fails to teach the amount of dye in as required by instant claim 18. The reference also fails to teach the particle size of dyes.

Kitko teaches a hypochlorite agent which provides transitory visual signal to indicate the activity of the sanitizing agent in a flush toilet bowl. See col. 2, lines 5-20. The dye agents are dispensed into the toilet flush water, wherein the dye is oxidized from a colored state to a colorless state within 5 seconds to 10 minutes after contact with the hypochlorite. See col. 1, line 57 – col. 2, line 20. Sodium dichloroisocyanurate dihydrate of instant claim 3 is among the sanitizing hypochlorite agents for the invention. See col. 2, lines 21 – 49. The reference teaches that the dye should be present in a ratio of available chlorine:dye of from 2:1 to about 150:1, preferably from about 5:1 to 25:1. See instant claim 1 (c). The reference also teaches that the amount of dye dispensed to the toilet will depend on the color intensity desired, the amount of sanitizing agent dispensed into the toilet with the dye, and on the quickness with which it is desired to have the color disappear. See col. 3, lines 38 –42. The reference further

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teaches that the dyes which are suitable for use in the method of the prior art invention are those which are oxidized by the sanitizing agent to a colorless state within a period of 5 seconds to 10 minutes from the time they come in to contact with the sanitizing agent during the flushing of the toilet. See col. 3, lines 53-58. The reference teaches that 2-30 ppm of chlorine amount of hypochlorite-providing compound sufficient to provide from about 2 to about 30 ppm. See col. 2, lines 55- 60. See instant claim 18. The reference also illustrate the testing of dyes for the time interval to change its color to colorless stage at catalyzed and uncatalyzed chlorine level of 5 ppm, at pH 6 and 9. See col. 3, line 60 – col. 4, line 58. FD&C dyes, such as FD&C no. 3, are tested. See instant 14. Since the same type of dyes are used in the prior art and the present invention, it is viewed obvious that the particle size of the dyes also the same. See instant claim 1(b) and 2. The reference teaches that dyes provide the color change within a period of from about 5 seconds to 10 minutes. See instant claim 14. Using FD&C dye no. 40 is viewed as an obvious choice for a desired color of the composition or solution. See instant claims 13 and 23. The size of solid, compacted cake containing dye is taught in col. 1, lines 11 – 17.

While the reference teaches that the color change occurs in 5 seconds to 10 minutes, the reference also teaches that the amount of dyes to be used depend on the intensity of the color, and the quickness with which it is desired to have the color disappear, while also suggesting that wide variety of dyes can be used. See col. 3, lines 34 – 52. Examiner views that given this information, one of ordinary skill in the art

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would have discovered, by routine experimentations, the optimum ratio of chlorine to dye required to produce the color-to-colorless signal within a desired time frame.

The reference teaches to test the types and concentration of dyes and hypochlorite in 3 liters of water. See col. 3, lines 53 – col. 4, lines 59; instant claims 70, 75, and 76. It is noted that differences in concentration generally will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP § 2144.05. In this case, given the specific teaching of the concentration of the chlorine source and dye in a tablet in Holdt, and the time required to provide the color change signal with specific amount of dyes and chlorine source as taught in Kitko, a skilled artisan would have been able to optimize the concentration of the dyes and chlorine source by routine experimentations because of the expectation of successfully producing the color-to colorless signal change with a desired time frame.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of Holdt by varying the amount of dye component or hypochlorite agent as motivated by Keiko because 1) both Holdt and Keiko are directed to chlorine bleach compositions with color indicator for the same use; 2) and the skilled artisan would have had an expectation of successfully producing a composition with desired time interval of the color disappearance.

2. Claims 6, 9, 11, 13-18, 23, 24, 29, 53, 54, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdt and Kitko as applied to claims 1-5, 7, 8,

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19, 21, 22, 25, 26, 27, 50, 51, 55, 56, and 59-76 above, and further in view of Gladfelter (US 5358653) ("Gladfelter").

Holdt, discussed above, fails to teach the composition in encapsulated form.

Gladfelter teaches a cast chlorinated rinse aid concentrate suitable for dispensing an aqueous rinse concentrate and to methods of rinsing with simultaneous stain removal or sanitization. See col. 3, lines 37 – 41. The dimensions and shapes of the solid composition are disclosed in col. 3, lines 37 – 57. See instant claims 3. Examples disclose the preparation of encapsulated active chlorine compound comprising sodium dichloroisocyanurate dihydrate and sodium sulfate. See instant claims 4, 9, 11, and 17. Using monosodium orthophosphate (sodium dihydrogen phosphate) is also suggested. See col. 5, lines 1 – 11. See instant claim 15. The encapsulated chlorine source of the invention comprises the core of active chlorine with an inorganic intermediate coating and an outer organic coating. See col. 4, line 60 – col. 7, line 35. See instant claim 44. The reference teaches the method of using the invention, which include introducing the aid into potable water in rinse cycles at relatively neutral pH, wherein the concentration of the active chlorine is about 3 to 50 ppm. See col. 2, lines 29 – 49. The reference also teaches using higher chlorine concentration for more effective sanitization. The reference further provides that the concentration required may vary depending on the temperature of the water. See col. 12, line 50 – col. 13, line 7. The reference also teaches that, in the process of the preparation of the composition, the encapsulated chlorine and additives are "thoroughly mixed" before hardening. See col. 12, lines 5 – 32. See instant claims 53 and 54. The

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reference teaches "the encapsulated chlorine sources, in combination with a polyalkylene oxide type rinse aid surfactants of the invention are stable during manufacture, storage, transportation, and use." See col. 4, lines 6-11.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Holdt composition by making an encapsulated disinfectant composition as motivated by Gladfelter because 1) both references are directed to chlorine bleach composition for hard surfaces; 2) Gladfelter teaches that the encapsulating chlorine source has special advantage of stability of the composition during manufacturing, storage, and use and allows to add surfactants for stain removal; 3) thus one of ordinary skill in the art would have had reasonable expectation of successfully producing a stable bleach composition for removing stains and disinfection.

Response to Arguments

Applicant's arguments filed on September 14, 2004 have been fully considered but they are moot in view of the new grounds of rejection in part, and not persuasive in part.

Applicants argue that Holdt and Kitko, taken alone or in combination with one another, failed to teach the claimed invention. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Furthermore, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

While applicants assert that Gladfelter and Holdt are not combinable because the references are directed to warewashing and toilet cleaning, examiner respectfully disagrees. It has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are directed to oxygen or halogen containing chemical bleaching or oxidant. It is noted that Holdt and Gladfelter are classified under same class and subclass in 252/185.35, which is composition containing a stabilizer or a product in the form of a surface-modified, impregnated, encapsulated, or surface-coated article; or process of producing said composition, and particularly using chloroisocyanurate. Gladfelter also teaches how to maintain the stability of the chlorine source during manufacture, storage, and transportation, and use, which is also the particular problem which applicants was concerned. Thus, Holdt and Gladfelter are analogous arts, and the combination of the references is proper.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-0635.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gina Yu
Patent Examiner

A handwritten signature in black ink, appearing to read 'S. Padmanabhan', with a horizontal line underneath.

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER